



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,740	01/03/2001	Atsushi Fuchimukai	P20187	1186

7590 06/04/2004

GREENBLUM & BERNSTEIN, P.L.C.  
1941 ROLAND CLARKE PLACE  
RESTON, VA 20191

EXAMINER

SELBY, GEVELL V

ART UNIT	PAPER NUMBER
----------	--------------

2615

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/752,740

Applicant(s)

FUCHIMUKAI ET AL.

Examiner

Gevell Selby

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments filed 3/8/04 have been fully considered but they are not persuasive.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 4-8, 11-13, and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski et al., US 5,900,909, in view of Okano et al., US 5,402,197 for the same reasons as set forth on pages 2-4 of the last office action.**

In regard to claims 1, 6, 7, 8, and 13, the Parulski discloses digital camera comprising:

a position sensor which detects a position of a camera body of said digital camera relative to the direction of gravity (see column 5, lines 27-33);  
a memory in which image data of a captured image is recorded (see column 3, lines 30-33); and  
a controller (see figure 2, element 22).

Parulski lacks at least one acceleration sensor which detects acceleration acting upon said camera body; and

wherein if the magnitude of said acceleration detected by said at least one acceleration sensor at the time said captured image is obtained is smaller than a predetermined value, said controller records said image data in said memory together with data on a position of said camera body that is detected by said position sensor at the time said captured image is obtained, and

if the magnitude of said acceleration detected by said at least one acceleration sensor at the time said captured image is obtained is equal to or greater than said predetermined value, said controller considers said data on said position of said camera body as invalid data, records said image data in said memory, and does not record said data on said position of said camera body in said memory.

Parulski does disclose the design option of storing the position information along with the properly oriented images in the memory card so that it can be used for further processing by a computer (see column 6, lines 6-13). Parulski discloses another design option of rotating the images when necessary and not saving the position data to memory in order just to do image correction within the camera (see column 6, lines 18-24). Parulski also discloses a third design option of an orientation on/off switch to permit the camera to store uncorrected images on the memory card (see column 6, lines 14-16).

Okano et al., US 5, 402,197, discloses a camera-shake alarming apparatus that: determines the limit value of camera-shake (see figure 3, element s4); detects the amount of camera-shake with an angular speed or acceleration sensor (see figure 3, element s5 and column 4, lines 43-44); compensates for the camera-shake (see figure 3, element s6);

determines whether the camera-shake amount is over the predetermined amount (see figure 3, element s7) and if it is an alarm is set (see figure 3, element s8). Okano et al., US 5, 402,197, teaches that image blur can be prevented beforehand by using the alarm system (see column 3, line 44-48).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Parulski et al., US 5,900,909, in view of Okano et al., US 5,402,197, to have an acceleration sensor, so the controller can compensate for the camera-shake; determines whether the camera-shake amount is over the predetermined amount and if it is, set an alarm in order to alert the there is too much camera shake for reliable picture taking as taught by Okano.

It would have been an obvious design choice for a person of ordinary skill in the art to modify the Parulski reference to have the controller save the orientation data in the header along with the image data in memory when the camera -shake is below a predetermined value so that further processing may be done by a computer and alert the user the switch off the camera orientation switch so that only uncorrected images are stored in memory when the camera shake is above a predetermined value because the orientation data may not be accurate.

In regard to claims 4, 11, and 16, Parulski et al., US 5,900,909, in view of Okano et al., US 5, 402,197, discloses all the limitations of claims 1, 6, and 13, respectively. Parulski et al., US 5,900,909, discloses a camera wherein the position sensor comprises a ball, a light emitting element and more than one light receiving element (see column 5, lines 28-33).

In regard to claims 5, 12, and 17, Parulski et al., US 5,900,909, in view of Okano et al., US 5, 402,197, discloses the camera of claims 1, 6, and 13 respectively. Parulski discloses wherein when the acceleration detected by said acceleration sensor is a direction opposite to the direction of gravity, said data on the position of the of the camera is recorded regardless of magnitude when the user selects to have the data recorded (see column 3, lines 60-67 and column 6, lines 6-8).

When the camera is accelerated upward or in the direction opposite of gravity, the acceleration has no effect on the camera orientation because it does not cause the sensing medium of the position sensor (see column 5, lines 27-39) to move out of the correct position. Therefore it would have been obvious to record the position of the camera in the Parulski reference at any acceleration magnitude in the direction opposite to the direction of gravity because will always be correct.

**4. Claims 2, 9, and 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski et al., US 5,900,909, in view of Okano et al., US 5,402,197, as applied to claims 1, 6, and 13 respectively, further in view of Hara et al., US 5,686,665 for the same reasons as set forth on page 5 of the last office action.**

In regard to claims 2, 9, and 14, Parulski et al., US 5,900,909, in view of Okano et al., US 5, 402,197, discloses all the limitations of claims 1, 6, and 13, respectively. Parulski et al., US 5,900,909, in view of Okano et al., US 5, 402,197, lacks at least one acceleration sensor comprising:

a first acceleration sensor which exclusively detects an acceleration in a horizontal direction; and

a second acceleration sensor which exclusively detects an acceleration in a vertical direction perpendicular to said horizontal direction.

Hara et al., US 5,686,665, discloses a camera comprising:

a first acceleration sensor which exclusively detects an acceleration in a horizontal direction (see column 5, lines 13-16 and column 3, lines 12-14); and

a second acceleration sensor which exclusively detects an acceleration in a vertical direction perpendicular to said horizontal direction (see column 5, lines 13-16 and column 3, lines 12-14).

It would have been obvious to a person skilled in the art at the time of invention to have been motivated to modify Parulski et al., US 5,900,909, in view of Okano et al., US 5, 402,197, in further view of Hara et al., US 5,686,665, to have acceleration sensors as claimed in order to measure acceleration in the three axial directions as taught by Hara.

**5. Claims 3, 10, and 15, are rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski et al., US 5,900,909, in view of Okano et al., US 5,402,197, as applied to claims 1, 6, and 13 respectively, in further view of Nakajima et al., US 5,669,147 for the same reasons as set forth on page 6 of the last office action.**

Art Unit: 2615

In regard to claims 3, 10 and 15, Parulski et al., US 5,900,909, in view of Okano et al., US 5, 402,197, discloses all the limitations of claims 1, 6, and 13, respectively.

Parulski et al., US 5,900,909, in view of Okano et al., US 5, 402,197, lacks the position sensor comprising a ball, a surface layer of the ball comprising a conductive material.

Nakajima et al., US 5,669,147, discloses a camera wherein the position sensor comprises a ball, a surface layer of the ball comprising a conductive material (see fig 2C and column 2, lines 32-36). Nakajima et al., US 5,669,147, teaches that by using conductive particles the tilt sensor does not cause on/off chattering between the electrodes (see column 1, lines 58-60).

It would have been obvious to a person skilled in the art at the time of invention to have been motivated to modify Parulski et al., US 5,900,909, in view of Okano et al., US 5, 402,197, in further view of Nakajima et al., US 5,669,147, to have a position sensor with a conductive ball in order to not cause chattering between the electrodes as taught by Nakajima.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after



Art Unit: 2615

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 703-305-8623. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's primary, Ngoc-Yen Vu can be reached on 703-305-4946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gvs



NGOC-YEN VU  
PRIMARY EXAMINER